

## **ADDENDUM TO DISTRICT NATURAL EVENT DOCUMENTATION**

This report is an addendum to the Natural Event Documentation (NED) for the Victorville monitoring station prepared by the Mojave Desert Air Quality Management District (District). The District documentation was submitted to the California Air Resources Board (ARB) on June 28, 2007, and supplemented on September 28, 2007 and March 3, 2008. This report demonstrates that without this natural high wind event, there would not have been exceedances of the federal PM10 Standard on April 12, 2007.

The Code of Federal Regulations (CFR) provides the definition and criteria for determining whether air quality data is impacted by an exceptional event. The 40 CFR 50.1 (j) definition states that “exceptional event means an event that affects air quality, is not reasonably controllable or preventable, is an event caused by human activity that is unlikely to recur at a particular location or a natural event, and is determined by the Administrator in accordance with 40 CFR 50.14 to be an exceptional event.” The demonstration to justify data exclusion as outlined in 40 CFR 50.14 specifies that evidence must be provided that:

1. The event meets the definition of an exceptional event;
2. There is a clear causal relationship between the measurement under consideration and the event that is claimed to have affected air quality in the area;
3. The event is associated with a measured concentration in excess of normal historical fluctuations, including background; and,
4. There would have been no exceedance or violation but for the event.

This report documents that the event meets the above criteria and provides analysis to demonstrate that:

- I. The dust event was not reasonably controllable or preventable because the PM10 originated from a non-anthropogenic source;
- II. There is a clear-causal connection between the regional high wind event and the exceedance at Barstow, Lancaster, Lucerne Valley, and Victorville;
- III. The measured concentrations were beyond normal historical levels; and
- IV. The exceedances would not have occurred “but for” the high winds.

## **Overview of Event**

On April 12, 2007, sustained high winds and strong wind gusts over the Mojave Desert Air Quality Management District (Mojave AQMD) entrained dust into the atmosphere, causing PM<sub>10</sub> exceedances at four monitoring sites in the Mojave AQMD (sites noted in red in Figure 1). Anthropogenic sources near the monitors played only a small role in the PM<sub>10</sub> levels seen at this site. The District has reasonable and appropriate controls in place to reduce dust from anthropogenic sources. The winds on this day, however, were high enough to overwhelm any control measures. Therefore, this natural event and the associated exceedances were not reasonably controllable or preventable.

Figure 1. Mojave Desert PM<sub>10</sub> monitoring sites and airports



## **Affected Air Quality**

On April 12, 2007, the Federal Reference Monitors at four sites (Barstow, Lancaster, Lucerne Valley, and Victorville) and the Federal Equivalent Method (FEM) TEOM (Tapered Element Oscillating Microbalance) monitor at Victorville in the Mojave Desert Air Quality Management District (Mojave AQMD or District), exceeded the National Ambient Air Quality Standard (NAAQS) of 150  $\mu\text{g}/\text{m}^3$  (Table 1). In addition, several other monitoring sites in the region, particularly in the Imperial County Air Pollution Control District and the South Coast Air District reported elevated PM<sub>10</sub> concentrations.

Three sites in these Districts recorded concentrations over the NAAQS. (Separate Exceptional Event Requests will be submitted for these exceedances.)

Table 1. Regional PM10 monitoring sites and concentrations – 4/11/07-4/13/07

Air District	Site	Monitor	AQS No.	PM10 Concentration (ug/m3)		
				4/11/07	4/12/07	4/13/07
Mojave Desert	Victorville	FRM	60710306		<b>358</b>	
	Victorville	TEOM	60710306	105.2	<b>232.1</b>	78.2
	Trona	FRM	60711234		43	
	Trona	TEOM	60711234	97.0	51.1	23.8
	Ridgecrest	FRM	60290015		32	
	Mojave-Poole	FRM	60290011		73	
	Lucerne Valley	FRM	60710013		<b>229</b>	
	Lancaster	FRM	60379033		<b>188</b>	
	Hesperia	FRM	60714001		69	
	Barstow	FRM	60710001		<b>202</b>	
Imperial County	Brawley	FRM	6025007		<b>291</b>	
	Westmorland	FRM	60254003		<b>155</b>	
	Indio-Jackson	FRM	60652002		146	
South Coast	Perris	FRM	60656001		<b>167</b>	
	Santa Clarita	FRM	60376012		131	

### **Clear Causal Connection**

Hourly winds, seen in Figure 2, which began to increase on April 11 at the Mojave Desert and Air Resources Board monitoring sites (Appendix A in the District NED) gusted over 40 mph on April 11 and over 50 mph on April 12 (Table 2). These winds crossed the desert areas to the west of the monitoring site, entraining and transporting dust throughout the region. Hourly PM10 concentrations at the TEOM air quality monitoring sites showed commensurate increases, peaking at over 900  $\mu\text{g}/\text{m}^3$  on April 12 (above the maximum threshold for the TEOM). Both wind speeds and PM concentrations had decreased by the next day, April 13, returning to levels seen before the event. In addition to these exceedances, increases in concentrations were seen at most sites in the southern portion of the District.

Figure 2. Hourly Average Wind Speeds and Directions at District Monitoring Sites  
– April 11-13, 2007

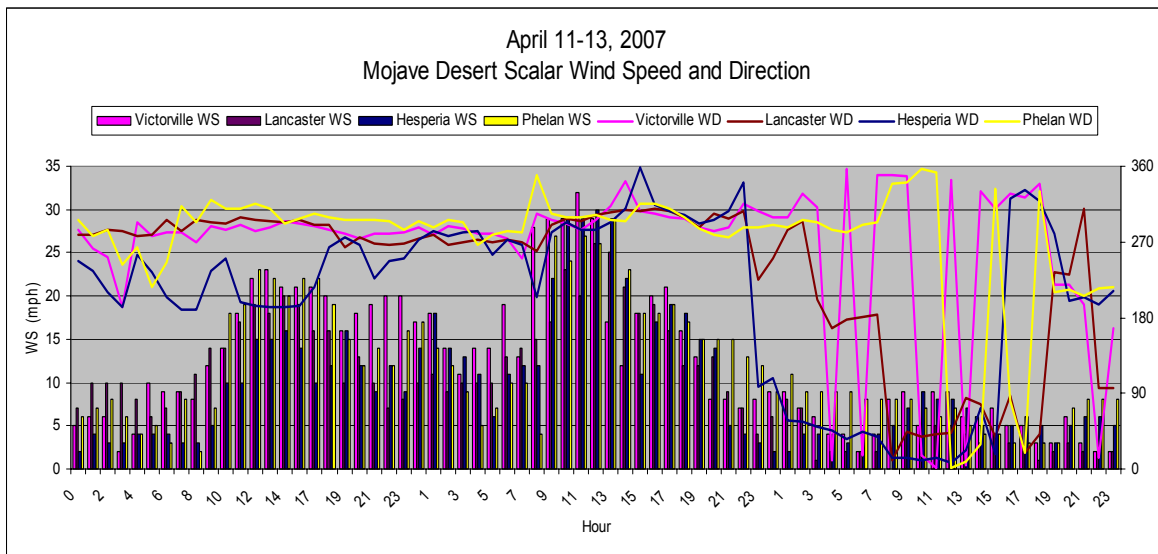
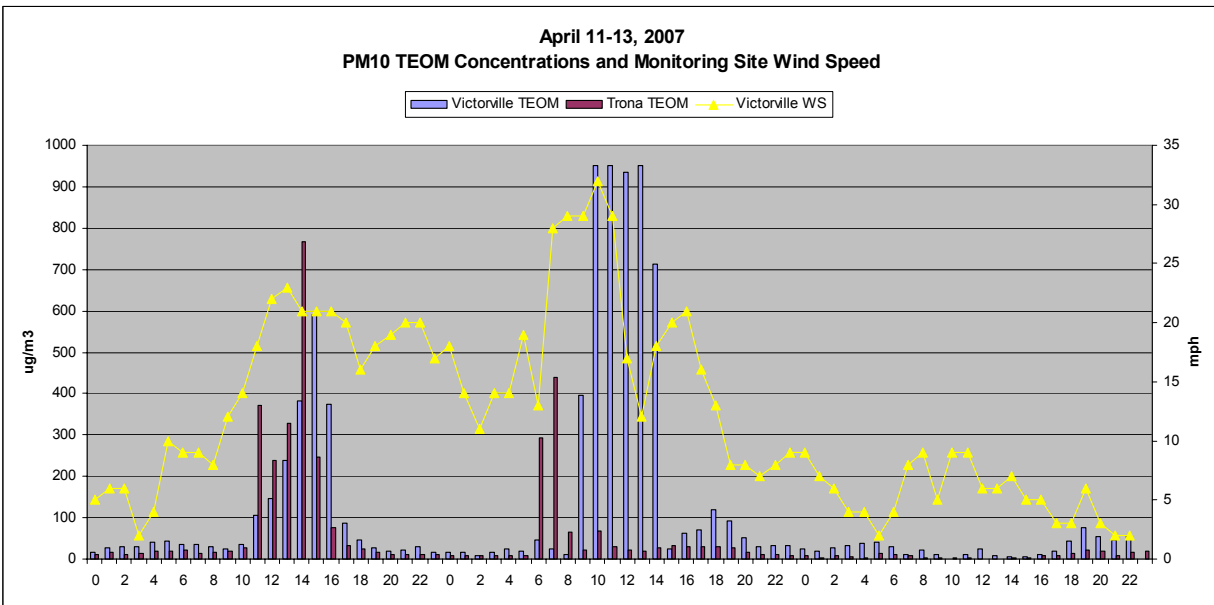


Table 2. Peak Wind (Gust) at Mojave Desert Sites – April 11-13, 2007

Daily Peak Wind (mph) - Maximum value			
Site	11-Apr	12-Apr	13-Apr
Fox Airport	41.5	54.1	16.1
Lancaster	35	42	16
Barstow	47	52	22
Hesperia	31	46	19
Phelan	33	45	20
SCL Airport	39.2	47.2	
Trona	46	45	24
Victorville	38	49	25

PM<sub>10</sub> concentrations (Figure 3) at the Victorville TEOM monitor (the only TEOM in the District exceeding the NAAQS) show an increase in the early afternoon of April 11, corresponding to the increase in surface wind speeds. Although wind speeds at the monitoring site remained elevated in the evening of April 11, other sites in the area, particularly west of Victorville, the source of the dust, were lower (Figure 2 above). The highest PM peaks, however, which resulted in the PM<sub>10</sub> exceedance, occurred with the highest wind speeds (at all sites) on April 12. Both PM concentrations and wind speeds decreased rapidly in the latter part of the day, returning to normal, lower levels on April 13.

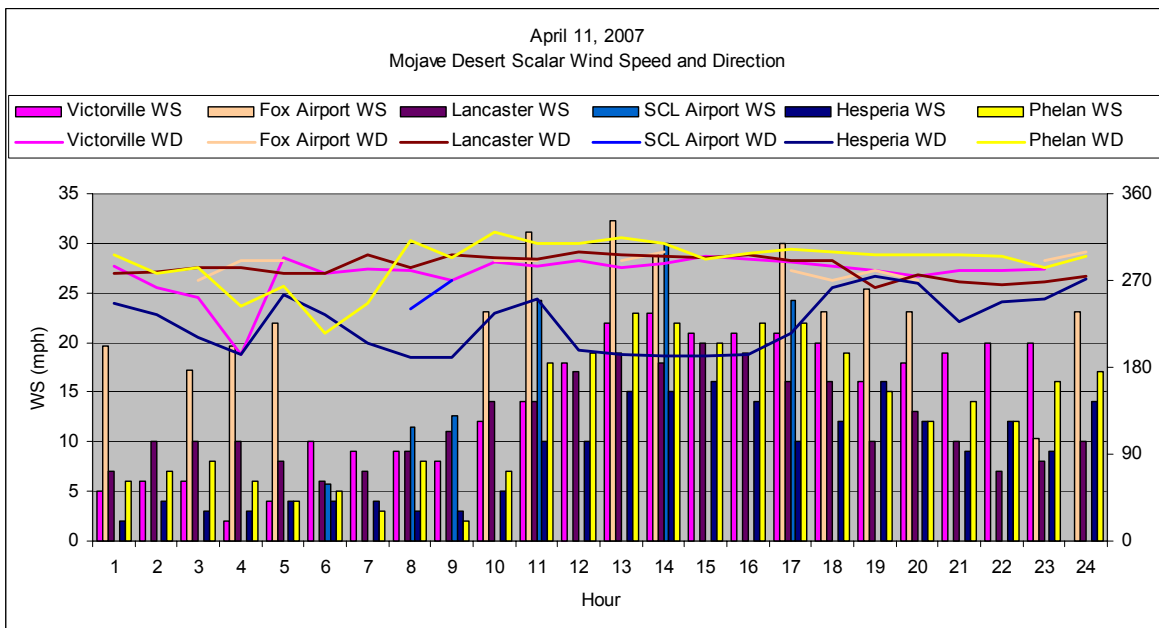
Figure 3. PM10 TEOM Concentrations and Wind Speeds – April 11-13, 2007.



## April 11

Hourly average data (Figure 4) from District monitoring sites shows wind speeds throughout the region increased substantially in the late morning of April 11. Hourly averages reached above 20 mph at several sites and as high as 30 mph at the Fox Airport, well above the regional dust entrainment thresholds of 15 mph in Imperial County (ENVIRON, 2004) to the south and 18 mph in the San Joaquin Valley (Bush, 2004; 73 FR 14696) to the north.

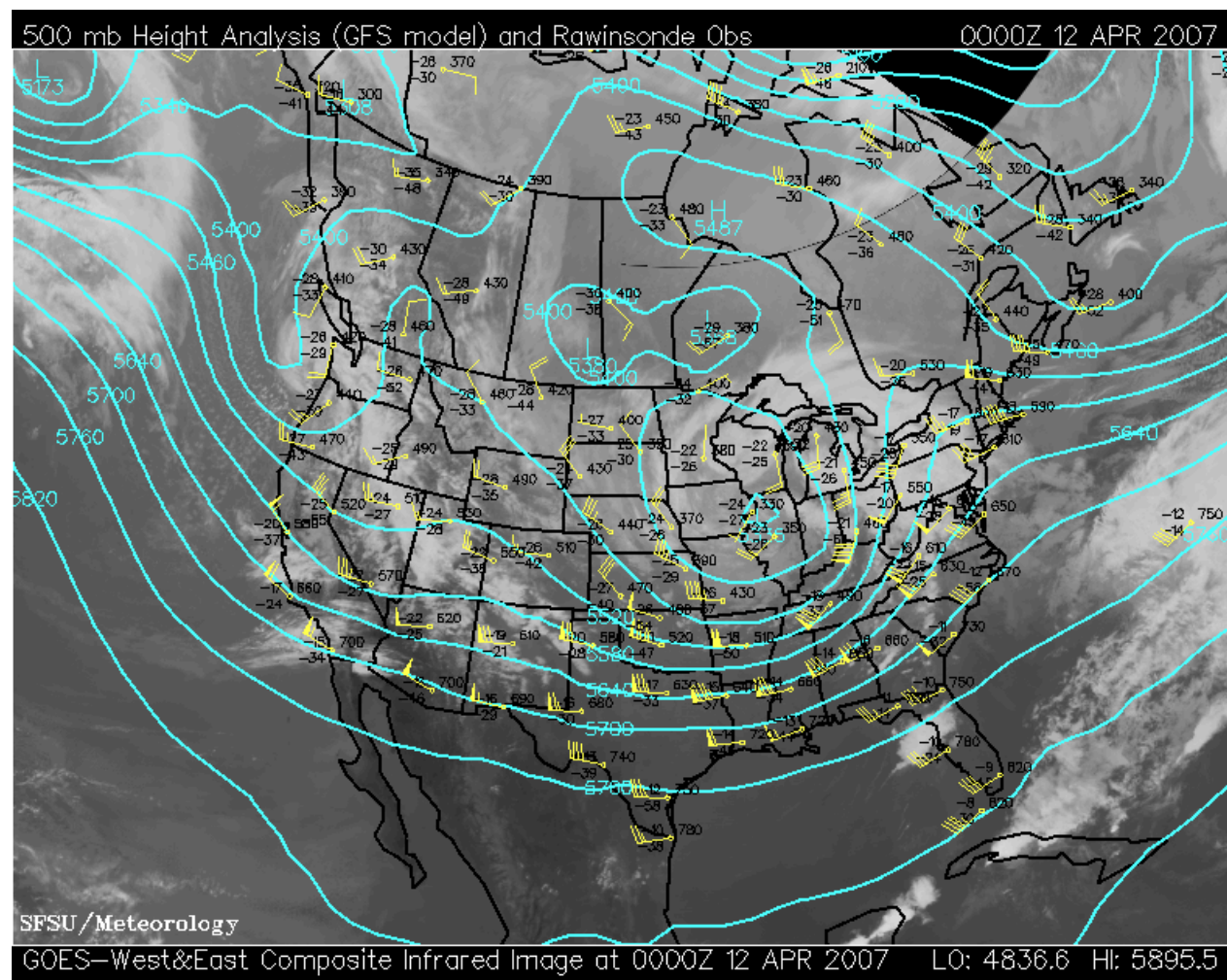
Figure 4. Hourly Average Wind Speeds and Directions at District Monitoring Sites





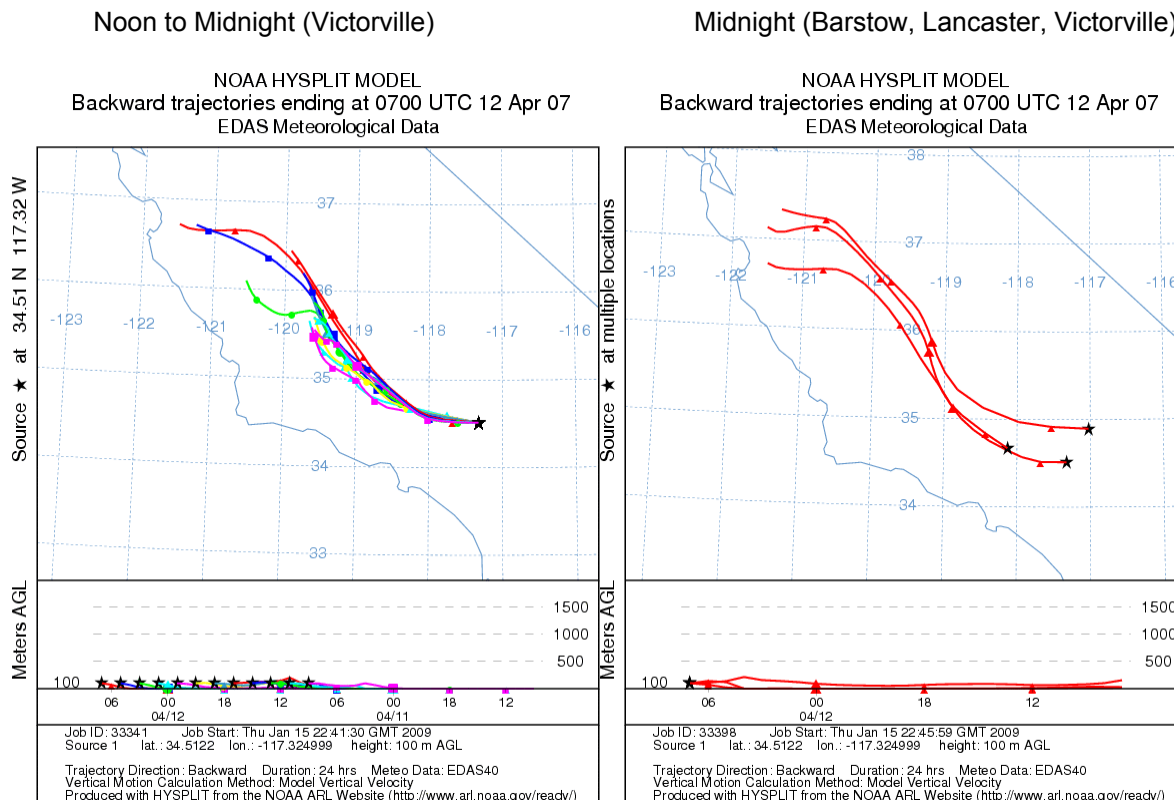
Satellite data on April 11 (Figure 5), shows strong airflow in the upper atmosphere from the west, supporting the surface pattern flow and allowing entrained dust to be transported to air monitoring sites in the Mojave Desert and surrounding region.

Figure 5. Upper Atmosphere Wind Flow  
Satellite GOES West/East Composite IR - 500 mb level  
00Z 041207 (5 p.m. PDT 041107)



A backward trajectory analysis, using NOAA's HYSPLIT (Hybrid Single-Particle Lagrangian Integrated Trajectory) model, corroborates a western impact on the monitors in the Mojave Desert. The left side of Figure 6 shows impact at the Victorville site from noon to midnight on April 11. The image on the right shows the midnight impact at three of the four exceeding sites (Victorville, Lancaster, and Barstow) in the District.

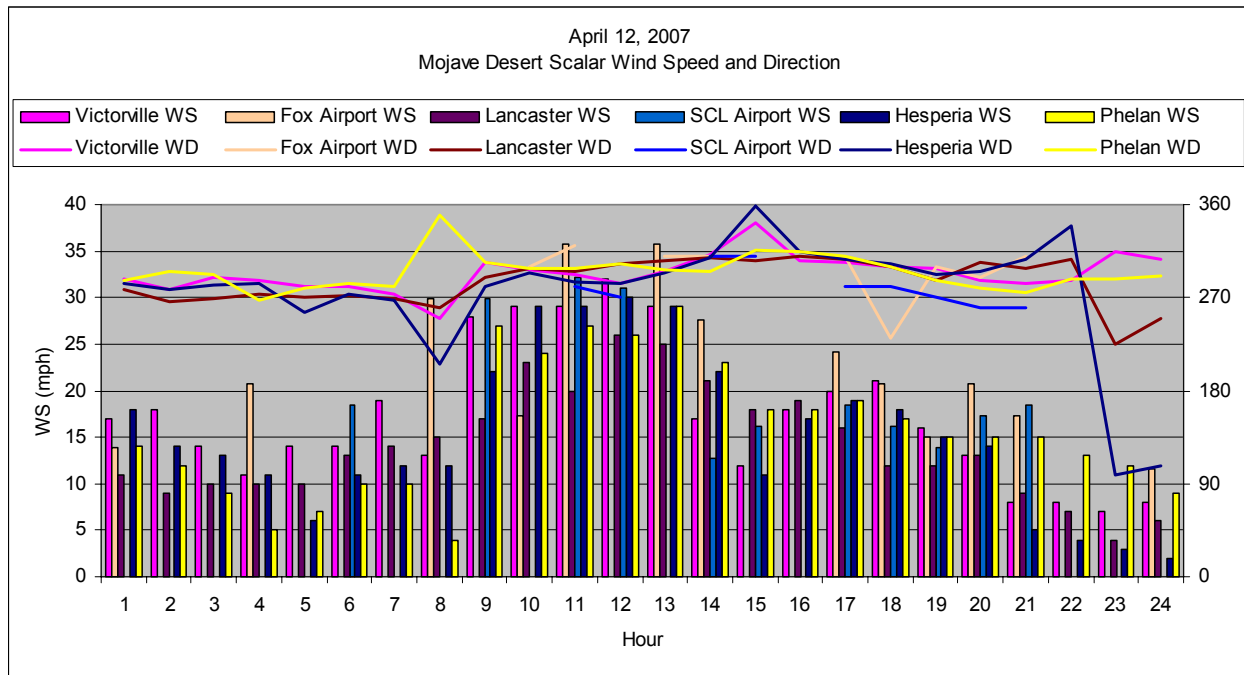
Figure 6. NOAA HYSPLIT backward trajectories – noon to midnight, 4/11/07.



## April 12

The high winds of the 11th continued into the next day (Figure 7), with hourly averages of over 20 mph from mid-morning to 4pm, and gusts as high as 50 mph (Table 2 above). PM concentrations, shown in Figure 3 above, were over 900 ug/m<sup>3</sup> in the morning of the 12th, corresponding with the highest wind speeds in the region. These concentrations decreased to below NAAQS levels with the decrease in wind speed in the latter part of the day.

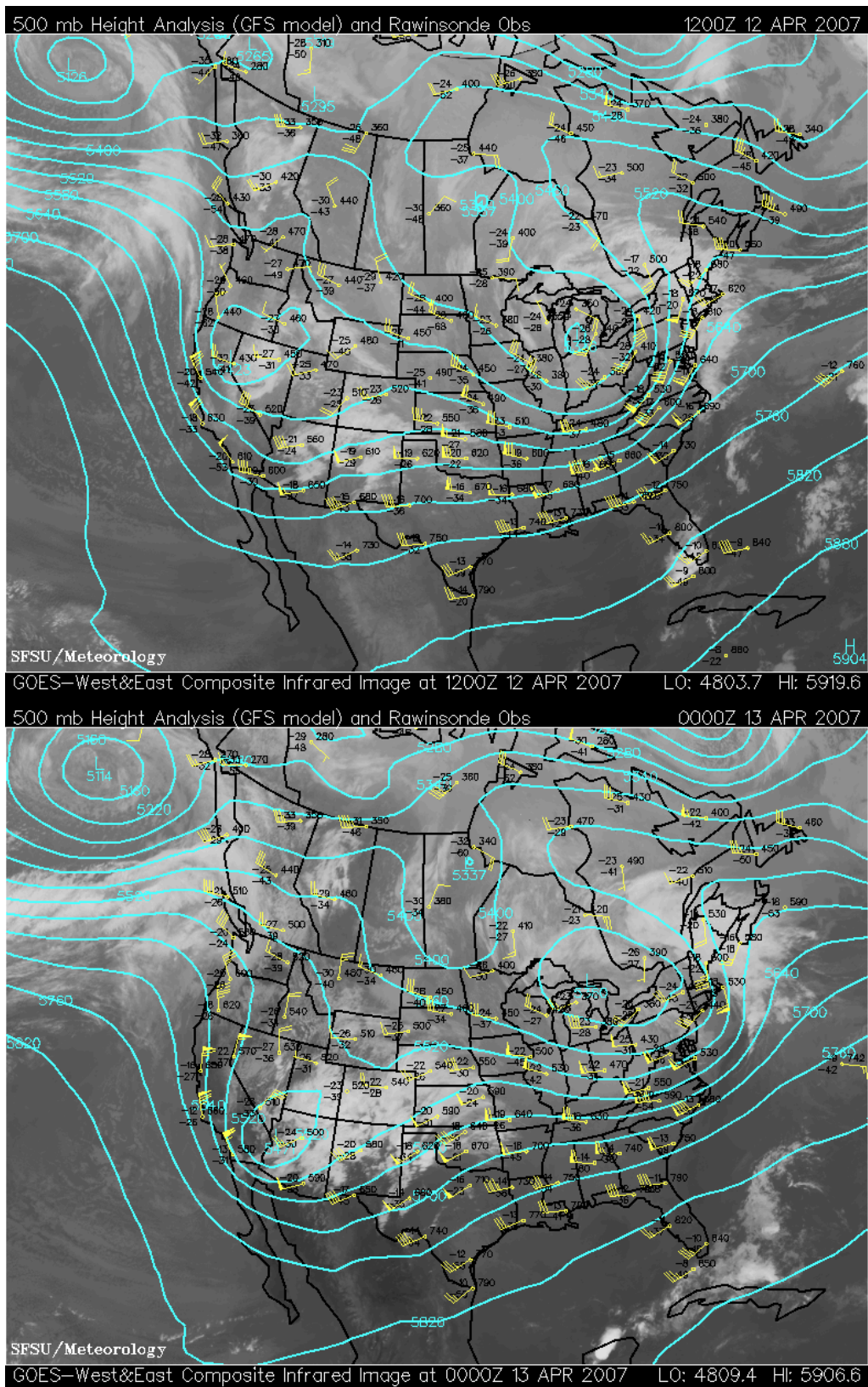
Figure 7. Hourly Average Wind Speeds and Directions at District Monitoring Sites



The satellite image (Figure 8) of the morning of April 12, shows strong airflow in the upper atmosphere from the west, supporting the surface flow pattern. Later in the day (5 p.m.), a more northern component to the upper air flow is seen and data from station monitors corroborate the lower wind speeds already noted at the monitoring site.

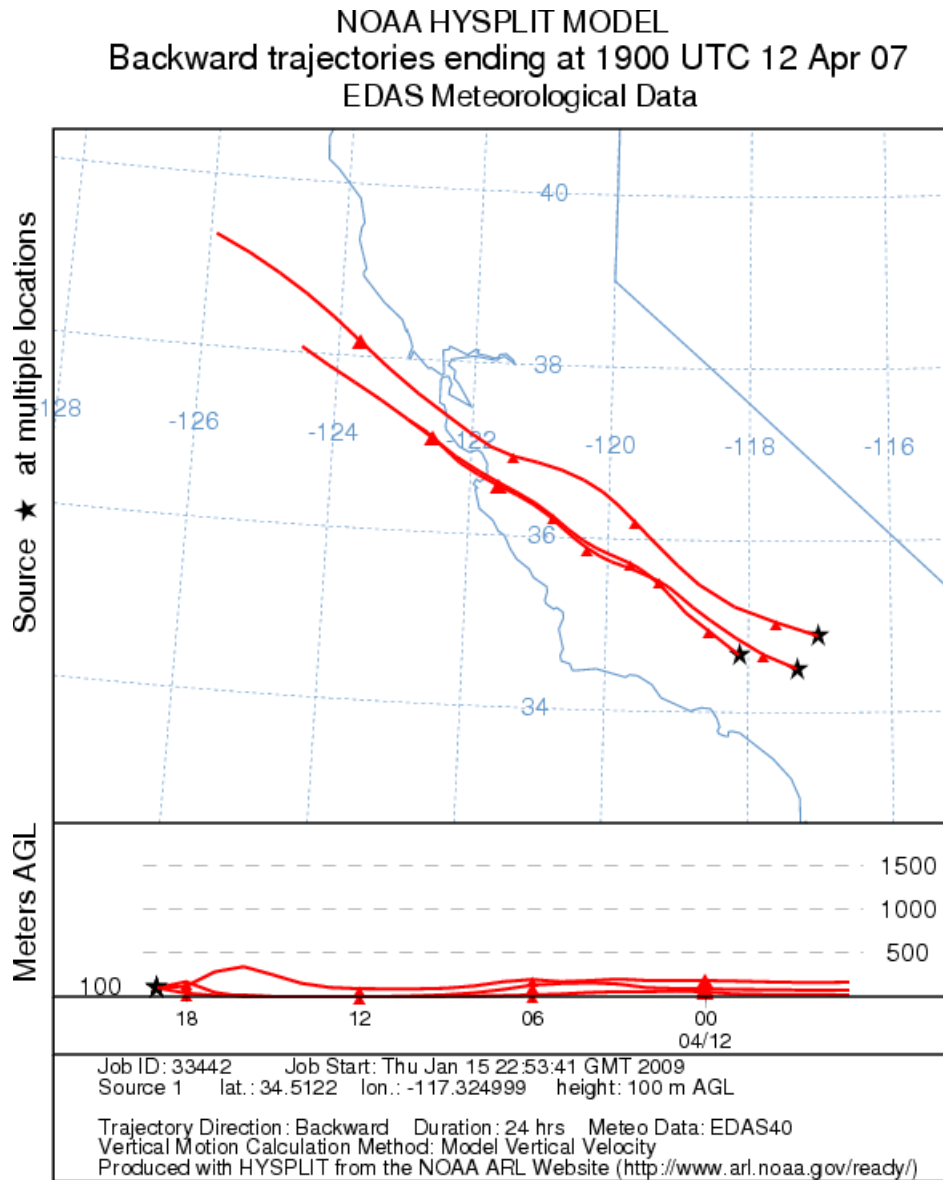


Figure 9. Upper Atmosphere Wind Flow  
 Satellite GOES West/East Composite IR - 500 mb level  
 Top: 12Z 041207 (5 a.m. PDT 041207)  
 Bottom: 00Z 041307 (5 p.m. PDT 041307)



Analysis of the results of the HYSPLIT backward trajectory model (shown in Figure 9) indicates a western/northwestern impact at three sites (Victorville, Lancaster, and Barstow) at noon, the time of peak PM10 concentrations as seen at the Victorville TEOM monitor.

Figure 9. NOAA HYSPLIT backward trajectories for April 12, 2007 (noon).



## **Above Historical and Background Levels**

### **Wind Speed**

Historically, the predominant wind at Lucerne Valley, located 24 miles ESE of Victorville, is from the west-northwest at around 10 mph (around 60% of the time). In the spring, these winds increase to approximately 12 mph. The annual resultant winds are from the west/northwest at approximately 5 mph, with those in the spring coming from the same direction at less than 7 mph [CARB, 1984]. On April 12, winds were from the expected west/northwest direction, but hourly average speeds were considerably higher than seasonal predominant or resultant winds, ranging up to 30 mph, with gusts of up to 40 mph. These speeds were well above both background levels and historical fluctuations.

Maximum wind speeds at the Victorville monitoring site, a location central to the Event and with complete data, (Table 3) showed the April 2003-2007 mean daily maximum wind speeds to be 17 mph (also 17 mph for April 2007). The standard deviation of this combined data was 5.2. The number of April days with winds above the dust entrainment threshold of 15 mph is outlined in Table 4. Figure 10 reiterates this data, noting the maximum wind speed at Victorville on April 12, 2007 (not including wind gusts) was almost three standard deviations above the April historical average, making it clearly an exceptional event.

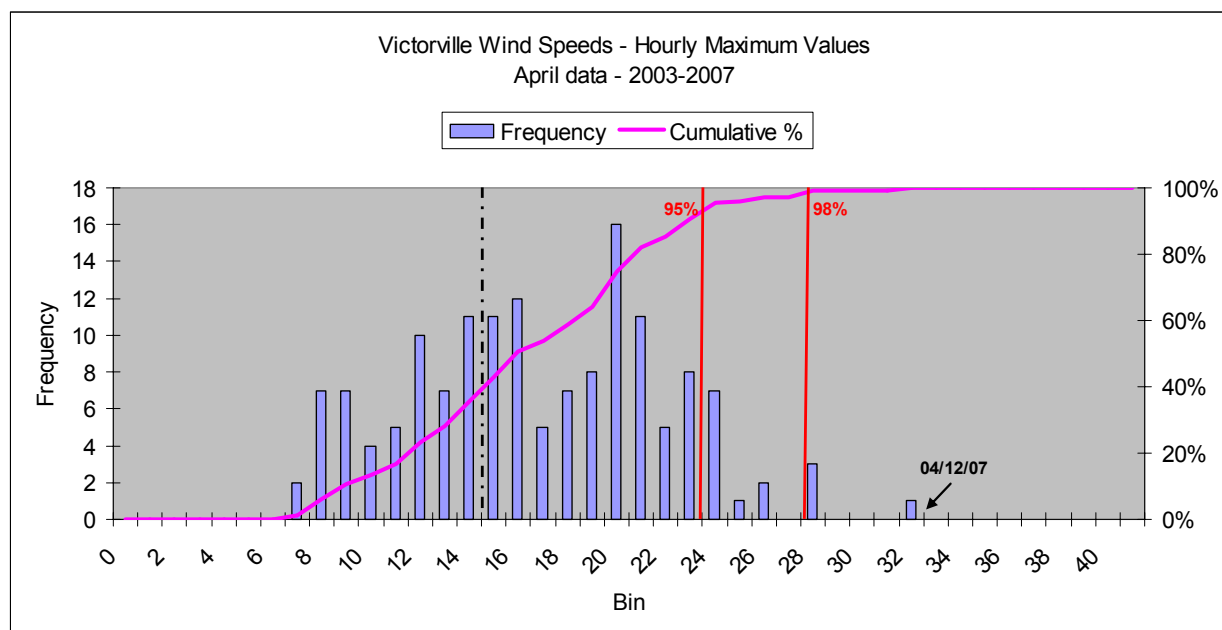
Table 3. April Daily Maximum Wind Speed Statistics for Victorville

	2003-2007	2003	2004	2005	2006	2007
Mean	16.79333	17.83333	15.46667	16.53333	17.03333	17.1
Standard Error	0.424664	0.898381	1.026917	1.000843	0.858338	0.962934
Median	16	19	16	15.5	18	16
Mode	20	20	8	12	20	15
Standard Deviation	5.201054	4.920634	5.624658	5.48184	4.701308	5.274205

Table 4. April Maximum Wind Speeds and Victorville PM10 TEOM Concentrations (2003-2007, no data available for April 2005 at this site).

Wind Speed (mph)	No. of Days	PM10 range
15-17	28	10 – 49
18-20	31	4 – 54
21-23	24	11 – 105
24-26	10	12 – 78
27-29	3	35 – 65
30-32	1	232*
		* 4/12/07 was only exceedance

Figure 10. Maximum Daily Wind Speeds, Victorville, April 2003-2007



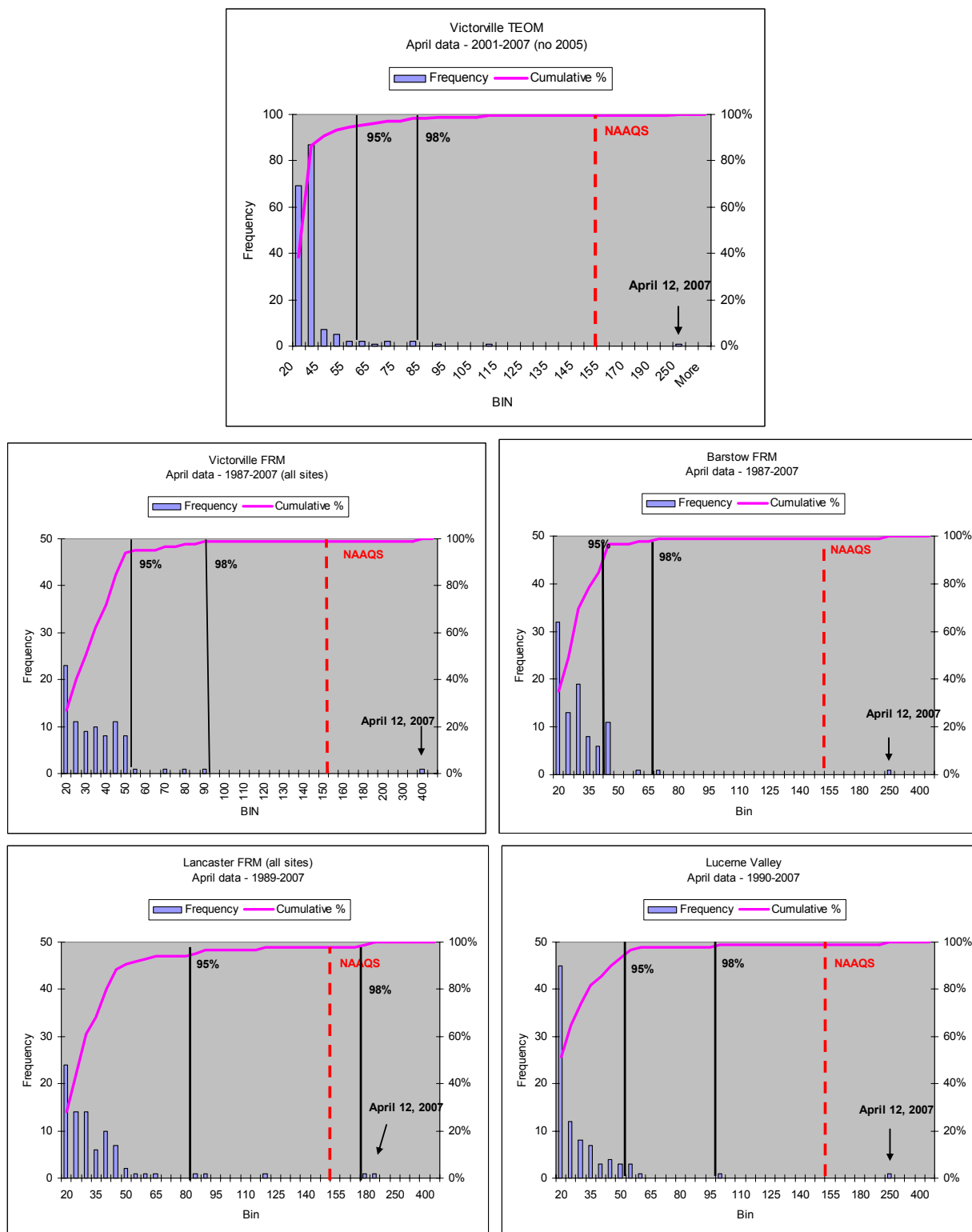
### Air Quality

Historically, PM concentrations at the Mojave Desert monitoring sites that exceeded the NAAQS are generally well below the NAAQS in April (Table 5). As shown in Figure 11, exceedances like the one seen at the monitoring sites on April 12 occurred so infrequently, that there was the only one April NAAQS exceedance since 1987. This exceedance, at the Lancaster-W Ponderosa monitoring site, occurred on April 29, 1990. The concentrations seen on this date, therefore, were far above historical fluctuations as well as above background levels.

Table 5. April PM<sub>10</sub> Statistics for Victorville

	<b><i>Victorville FRM (all sites)</i></b>	<b><i>Victorville TEOM (Park site)</i></b>	<b><i>Barstow FRM</i></b>	<b><i>Lancaster FRM (all sites)</i></b>	<b><i>Lancaster FRM (Div site)</i></b>	<b><i>Lucerne Valley FRM</i></b>
Data Range	1987-2007	2001-2007	1987-2007	1989-2007	2002-2007	1990-2007
Count	85	180	202	85	30	88
Mean	34.73	27.75	27.54	33.07	25.97	26.08
Standard Error	4.20	1.61	2.31	3.20	5.89	2.83
Median	30	24.23	26	28	21	20
Mode	45	16.71	28	23	21	24
Standard Deviation	38.69	21.61	22.13	29.51	32.26	26.54

Figure 11. Historical April PM10 Concentrations at Mojave Desert monitoring sites



### **No exceedance 'but-for' the Event**

An estimation of the PM10 mass contributed by the high wind event to the concentration seen at the monitor is given in Table 6. Based on this data, the upper range of a normal concentration for April for these sites would have been between 26 and 89 ug/m3. Following guidance from U.S. EPA (U.S. EPA, 2009), ARB Staff estimates that the high wind event on April 12, 2007 provided an additional 99 to 323 ug/m3 of PM10. 'But-For' the high wind speeds and shift in wind direction, there would have been no exceedance of the federal PM10 standard.

Table 6. Estimate of PM10 Concentration (ug/m3) 'But-For' the Event

<b>Monitoring Site (data range)</b>	<b>Event Day Concentrations (ug/m3)</b>	<b>April Averages (ug/m3)</b>	<b>April 98<sup>th</sup> Percentile (w/o Event) (ug/m3)</b>	<b>Estimated Contribution of Event (ug/m3)</b>
Barstow (1987-2007)	202	28	58	144-174
Lancaster – all sites (1989-2007)	188	33	89	99-155
Lancaster – Division (2002-2007)	188	26	44	144-162
Lucerne Valley (1990-2007)	229	26	59	170-202
Victorville FRM (1987-2007)	358	35	77	281 - 323
Victorville TEOM (2001-2007)	232	28	78	161 - 204

PM Concentrations at the Mojave Desert air quality monitoring sites are generally well below the NAAQS. As noted in the NED, exceedances at the Victorville monitoring site like the ones on April 12 occurred only seven times from February, 2000 to April 2007 (less than 1% of the time). The April 12 concentrations were far above historical fluctuations as well as above background levels.

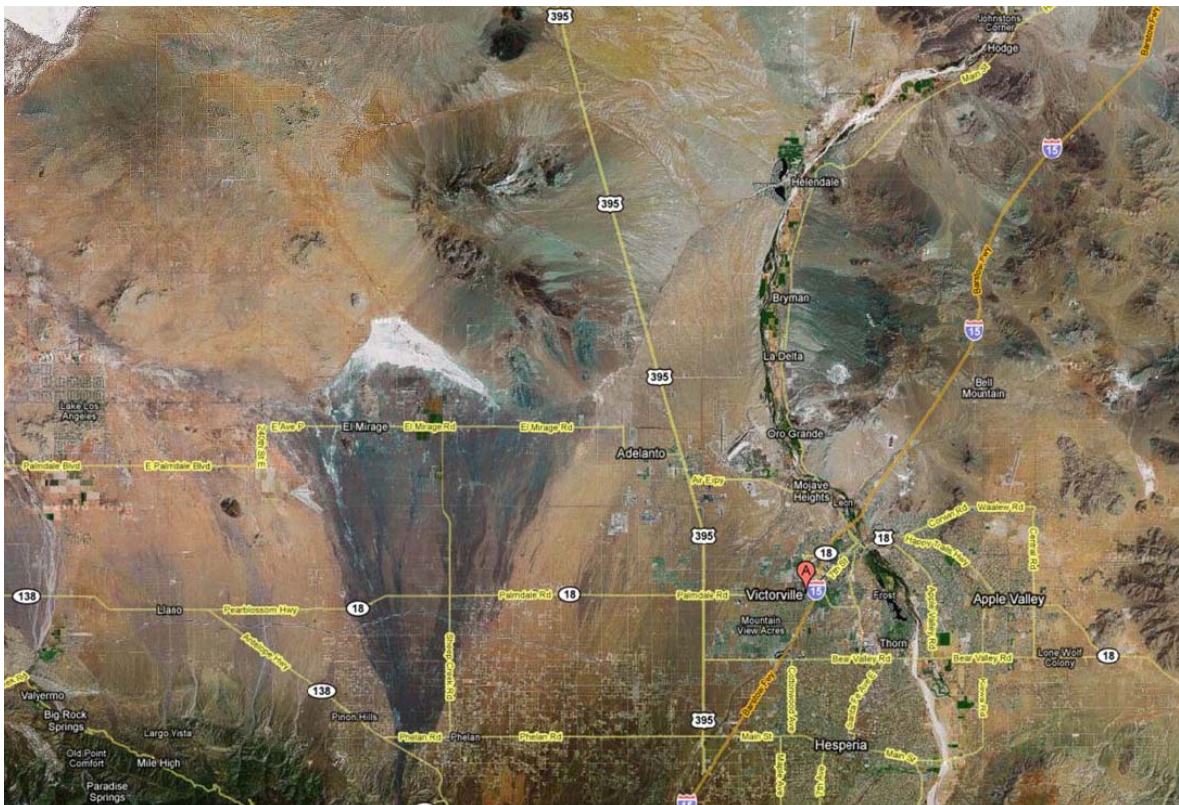
### **Determination of Source of PM10 in Area**

Victorville is located in the portion of the Mojave Desert known as Victor Valley. The area immediately to the west of Victorville (Figure 12) is mixed desert with some suburban housing and commercial development along Interstate 395. Further west, the area is considered unincorporated land, with a scattering of homes, but still mostly desert. The El Mirage Dry Lake is northwest of Victorville.

The winds that impacted the monitoring site flowed over these western desert areas at speeds high enough to both entrain and transport dust. Dust control measures for the Mojave Desert were in effect on April 11 and 12, but were overwhelmed by these high winds.



Figure 12. Satellite image – Western Mojave Desert (maps.google.com)



The PM<sub>10</sub> emissions inventory was reviewed to determine local sources that could generate dust and potentially contribute to the PM<sub>10</sub> exceedance. The 2006 PM<sub>10</sub> emissions inventory is summarized in Table 6. This inventory portrays annual average emissions and does not directly reflect emissions during an exceptional event.

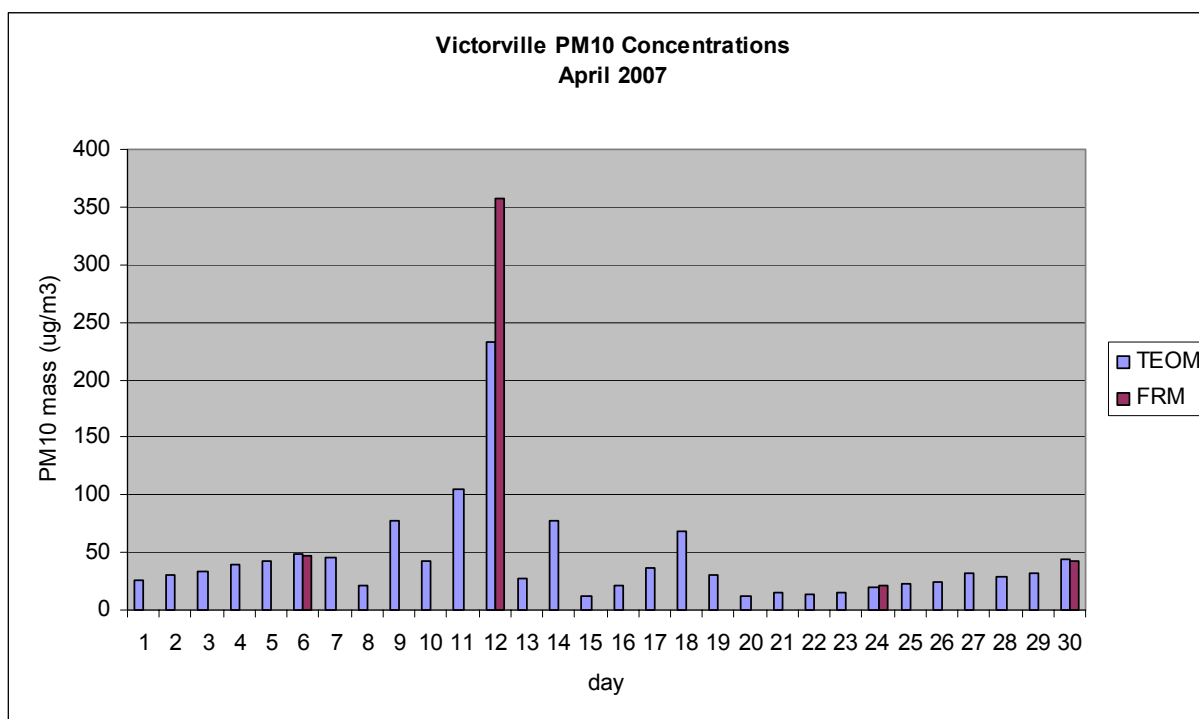
These measures specifically address emissions from construction activities, unpaved roads, and activities on Bureau of Land Management lands. As noted below, the majority of PM<sub>10</sub> emissions come from area-wide sources, in particular, road dust (paved and unpaved) and fugitive windblown dust. To control as much of the dust emissions as possible, the MDAQMD adopted Rule 403.2, Fugitive Dust Control for the Mojave Desert, in 1996, as a Reasonably Available Control Measure (RACM). Unfortunately, no measure can control all dust if the wind speeds reach a level to allow for entrainment and transport. Hourly averaged scalar wind speeds at Victorville and surrounding areas met or exceeded the entrainment threshold of 15 mph for 12 hours on April 11 and 13 hours on April 12, with gusts at the site reaching as high as 49 mph. Similar wind speeds and gusts were reported at sites throughout the region (see Table 2, Figures 2, 4, and 7, and attachments to NED).

Table 7. 2006 Annual Average PM10 Emission Inventory for San Bernardino County portion of Mojave Desert Air Basin (TPD)

<b>STATIONARY SOURCES</b>	
<b>SUMMARY CATEGORY NAME</b>	<b>2006</b>
FUEL COMBUSTION	0.573
WASTE DISPOSAL	0.005
CLEANING AND SURFACE COATINGS	0.019
PETROLEUM PRODUCTION AND MARKETING	0.001
INDUSTRIAL PROCESSES	11.469
<b>** TOTAL STATIONARY SOURCES</b>	<b>12.066</b>
<b>AREAWIDE SOURCES</b>	
<b>SUMMARY CATEGORY NAME</b>	<b>2006</b>
SOLVENT EVAPORATION	0.000
MISCELLANEOUS PROCESSES	
<a href="#">RESIDENTIAL FUEL COMBUSTION</a>	1.522
<a href="#">FARMING OPERATIONS</a>	0.122
<a href="#">CONSTRUCTION AND DEMOLITION</a>	7.701
<a href="#">PAVED ROAD DUST</a>	9.880
<a href="#">UNPAVED ROAD DUST</a>	34.084
<a href="#">FUGITIVE WINDBLOWN DUST</a>	15.070
<a href="#">FIRES</a>	0.020
<a href="#">MANAGED BURNING AND DISPOSAL</a>	0.453
<a href="#">COOKING</a>	1.795
<b>* TOTAL MISCELLANEOUS PROCESSES</b>	<b>70.646</b>
<b>** TOTAL AREAWIDE SOURCES</b>	<b>70.646</b>
<b>MOBILE SOURCES</b>	
<b>SUMMARY CATEGORY NAME</b>	<b>2006</b>
ON-ROAD MOTOR VEHICLES	4.521
OTHER MOBILE SOURCES	1.293
<b>** TOTAL MOBILE SOURCES</b>	<b>5.814</b>
<b>TOTAL MOJAVE DESERT AQMD IN SAN BERNARDINO COUNTY</b>	<b>88.526</b>

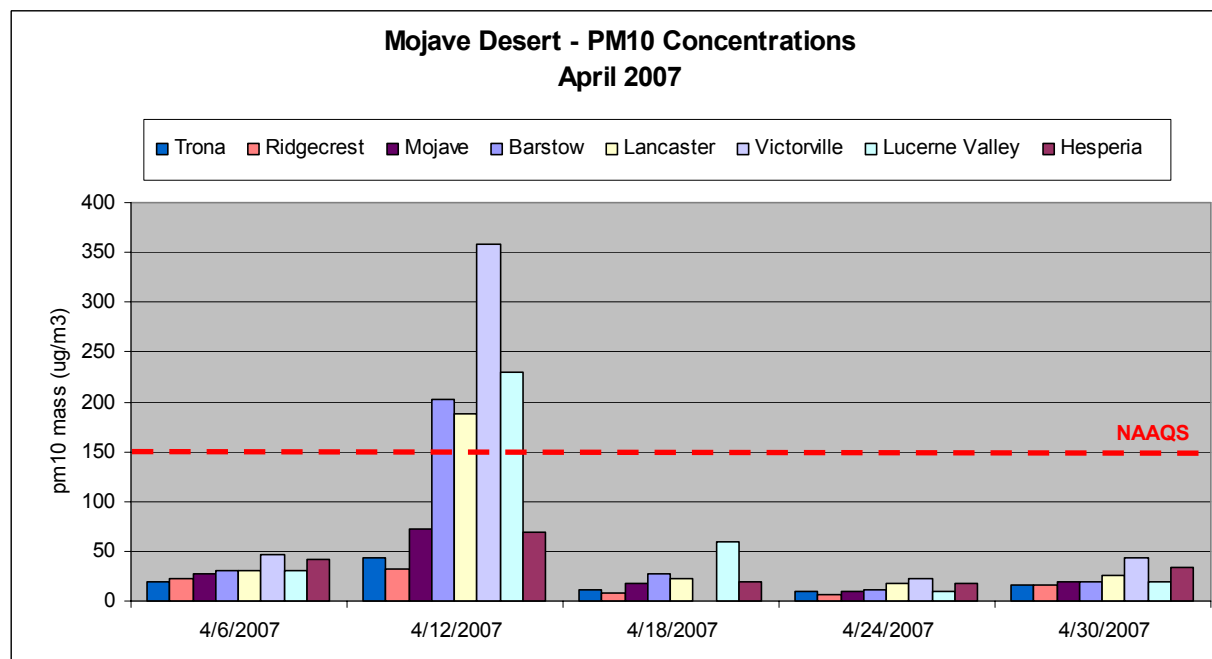
Additional documentation, submitted by the District to U.S. EPA on March 3, 2008, noted that the event was not related to local anthropogenic or non-compliant emission sources. No changes in emission patterns before, during, or after the event occurred which would account for the increased concentrations. As noted in Figure 15 below, PM10 concentrations at Victorville remained fairly consistent throughout the month and were well below the level of the standard.

Figure 13. PM10 Daily Concentrations – Victorville, April 2007



The regional nature of this event, supporting the assertion that local emissions were not a source of the dust seen at the four exceeding monitors, can be seen in Figure 14. All sites in the District showed elevated PM levels, with the sites to the north (Trona, Ridgecrest, Mojave) least affected by the high wind event.

Figure 14. PM10 Concentrations – Mojave Desert Monitoring Sites, April 2007



## **Mitigation Requirements**

### **Provide for Prompt Public Notification of Exceedance Events**

As noted in the NED, a Health Advisory Program exists to notify the public, via website postings and news media releases, of unhealthy air quality events. The District operates four PM10 TEOM sites for forecasting purposes. This data is utilized by the Mojave Desert AQMD website (<http://mdaqmd.ca.gov/>) to keep the public informed of current conditions. For those without computer access, the District also provides a phone number to call for air quality forecasts. A copy of the health advisory issued for April 12, 2007 is attached to this document.

### **Provide for Public Education on How to Minimize Exposure**

The District has an active community outreach program, as well as easily accessible information on their website to aid in public education on the hazards posed by exceptional events and how to minimize exposure to particulate matter.

## **Summary**

The District request, for the PM10 TEOM concentrations at Brawley, Lancaster, Lucerne Valley, and Victorville on April 12, 2007, to be excluded as due to a natural event caused by dust entrained by high winds, is reasonable and appropriate. The rise in PM10 concentrations at these sites, accompanied as they were by increases in wind speed, a shift in wind direction, and upper-level atmospheric support, indicate a clear and causal connection between the entrained dust and the exceedances at the monitors. Further analysis of historical and background levels, as well as local emissions, indicates that 'but-for' the high wind, there would not have been exceedances at the District monitors.

## **Attachments**

Health Advisory issued by District  
Newspaper articles regarding high winds in the Mojave Desert

## **Resources**

Bush, David. *T&B Systems Contribution to CRPAQS Initial Data Analysis of Field Program Measurements, Final Report Contract 2002-06PM*. Technical & Business Systems, Inc., November 9, 2004  
<http://www.arb.ca.gov/airways/CRPAQS/DA/Final/TBFinalOverview.pdf>

California Air Resources Board (CARB). *California Surface Wind Climatology*, June 1984

California Air Resources Board (CARB). Air Quality and Meteorological Information System (AQMIS2), <http://www.arb.ca.gov/aqmis2/aqinfo.php>, 2008, 2009

California Air Resources Board (CARB). Emissions Inventory Data: <http://www.arb.ca.gov/ei/emissiondata.htm>, 2009

ENVIRON, *Wind Blown Dust Study*, 2004

Federal Register (72 FR 13560-13581). *Treatment of Data Influenced by Exceptional Events; Final Rule*. Vol. 72, No. 55, Pages 13560-13581, March 22, 2007.

Federal Register (73 FR 14687-14713). *Approval and Promulgation of Implementation Plans; Designation of Areas for Air Quality Planning Purposes; State of California; PM-10; Affirmation of Determination of Attainment for the San Joaquin Valley Nonattainment Areas*. Vol. 73, No. 54, Pages 14687-14713, March 19, 2008.

Google Maps. <http://maps.google.com>. 2008

Mojave Desert Air Quality Management District (District). *Rule 403, Fugitive Dust Control for the Mojave Desert Planning Area*, 1996

Mojave Desert Air Quality Management District (District). *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*, June 2007

Mojave Desert Air Quality Management District (District). *Natural Event Documentation (NED)*, June 28, 2007; September 28, 2007; and March 3, 2008

Mojave Desert Air Quality Management District (District). Website, <http://mdaqmd.ca.gov/>, 2008

National Oceanic and Atmospheric Administration (NOAA). Air Resources Laboratory, Hybrid Single Particle Lagrangian Integrated Trajectory Model (Hysplit): <http://www.arl.noaa.gov/HYSPLIT.php>, 2008

San Francisco State University, Department of Geosciences, California Regional Weather Server: [http://squall.sfsu.edu/crws/archive/sathts\\_arch.html](http://squall.sfsu.edu/crws/archive/sathts_arch.html), 2008

United States Environmental Protection Agency (U.S. EPA), Neil Frank, [Presenting Evidence to Justify Data Exclusion as an Exceptional Event](#), Presentation to Westar State/EPA Exceptional Events Implementation Meeting, February 25-26, 2009

## ATTACHMENTS

1. Health Advisory issued from Mojave Desert AQMD
2. News Clippings from local newspapers – online archives





**Mojave Desert Air Quality Management District  
Community Relations & Education Office  
14306 Park Avenue  
Victorville, CA 92392**

**NOTICE OF HEALTH ADVISORY**

**\*\*HAZARDOUS\*\***

PAGE ONE OF ONE

ADVISORY DATE: April 12, 2007

EFFECTIVE DATE: April 12, 2007 TIME: **Until Midnight**

For further information, contact:

Violette Roberts, Community Relations & Education Manager

(760) 245-1661, ext. 6104 or Eldon Heaston, Executive Officer (760) 245-1661, ext. 5538

Due to the current high wind situation, local communities may experience elevated levels of particulate matter in outdoor air. Therefore, the Mojave Desert Air Quality Management District (MDAQMD) recommends that individuals affected take the following precautions throughout the entire **Mojave Desert AQMD** jurisdiction (any areas nearby and surrounding these cities – Adelanto, Apple Valley, Barstow, Hesperia, Lucerne Valley, Needles, Phelan, Trona, Twentynine Palms, and Yucca Valley).

- **EVERYONE** should avoid outdoor exertion. If you must be outdoors please take the following precautions.
- Individuals with respiratory disease, such as asthma, should avoid moderate or heavy exertion. Everyone else, especially children and the elderly should avoid prolonged exertion.
- Stay indoors if possible. Keep doors and windows closed when possible and set air conditioners on the “recycled air” setting, if units are equipped with this option (i.e., close the outdoor air vent)
- Office building managers are advised to set ventilation/air conditioning systems to minimize outdoor air entering structures (remember to re-set system once the episode is over).
- Outdoor workers are advised to minimize prolonged outdoor exertion.
- Individuals experiencing breathing difficulties or chest pain are advised to see their physician.

For updated information, call the MDAQMD’s automated Air Quality Forecast Line at (760) 245-1661, ext. 5067 or the Community Relations & Education Office at (760) 245-1661, ext. 6717. Or visit our website at [www.mdaqmd.ca.gov](http://www.mdaqmd.ca.gov) for more health precautions and the latest air quality information updates as made available.

## High winds wreak havoc around Victor Valley

[MATTHEW C. DURKEE](#)

April 12, 2007 - 9:49PM

VICTORVILLE — Gusts as high as 47 mph strafed the High Desert today, knocking down power lines, trees and signs and reducing visibility.

“A lot of real estate is moving around,” said Jon Ford, Adelanto’s assistant director of public works. “From my office, I couldn’t even see the light at Air Expressway and the highway for part of the day.”

Southern California Edison has been kept busy with downed power lines and power outages across the Inland Empire that have affected 8,000 to 9,000 customers, said Steve Connor of Southern California Edison.

He reported that the worst outages have been in Hesperia, and some customers may not see power restored until midnight or early this morning.

The worst affected area is between Maple Avenue on the west, Juniper Street on the south, Balsam Avenue on the east and Riverside Street on the north, said Nancy Jackson of Edison.

At Spring Valley Lake, a large canopy with an aluminum frame was destroyed when it was blown onto the swimming pool area, which was fortunately unoccupied at the time, said tennis pro Hassan Humayun.

In Apple Valley, some signs were downed as well as a tree that fell onto Deep Creek Road north of Tussing Ranch Road, and wires were hanging from a telephone pole near Kiowa Road and Sitting Bull Road, said Sierra Webb, town spokeswoman.

In Hesperia, wires were downed on Peach Street and a fallen tree had to be removed from Hickory Avenue, city spokeswoman Kim Summers said.

Despite a request for information, Victorville officials did not report wind damage in the city to the Daily Press.

In Adelanto, a street sign hanging from one of the stoplights at Palmdale Road and Highway 395 blew down, requiring Caltrans assistance to replace it, Ford said.

Today’s forecast calls for warmer, calmer weather with clear skies and highs in the upper 70s.

Erratic weather patterns like this — warm days interspersed with colder, windy weather — are common in the early spring, said National Weather Service forecaster Steve Vanderburg.

Another period of cooler, windier weather is expected for Sunday, although it shouldn’t be as severe as Thursday’s weather, Vanderburg said.

Dr. William Harris, an allergist who practices in Victorville, said that strong windstorms can significantly aggravate allergy sufferers.

Spring grasses and autumn weeds provide the worst allergens in the High Desert, he said.

“The worst is after the wind dies, when the pollens that have been raised into the atmosphere fall to the ground.”

Harris recommends that severe allergy sufferers keep indoors with the windows closed and maybe get an air filters, although he cautioned that dust, mold or pets should first be ruled out as allergens.